

AMENDMENTS TO THE SPECIFICATIONIn the Specification:

BB
6-19-09

Please amend the paragraph at page 2, lines ⁴⁻¹²~~8-11~~ as follows:

The process of manufacturing semiconductors (e.g., integrated circuits, ICs, chips) employing masks typically consists of more than a hundred steps, during which hundreds of copies of an integrated circuit may be formed on a single wafer. Generally, the process involves creating several patterned layers on and into the substrate that ultimately forms the complete integrated circuit. The patterned layers are created, in part, by the light that passes through the masks. A series of lenses provides for reduction in size ~~form~~ from the mask to the projected image onto the resist. The optical equipment for traditional photolithographic processes requires significant capital investment.

Please amend the paragraph at page 2, lines 22-32 as follows:

In a conventional nanoprint process a UV-transmittable quartz mask/mold is pressed into a thin film of low viscosity UV-curable monomer coated onto a substrate. Subsequent exposure of the substrate by UV-irradiation through the mask/mold results in polymerization and curing of the resist in the imprinted area. Thereafter the mold is removed leaving an inverted three-dimensional replica of its pattern into the cured imprint polymer. Finally, the residual imprint layer in the depressed areas is removed by high anisotropic reactive ion etching. One advantage is that the circuit designers do not need to be concerned about optical proximity correction which otherwise limits how patterns are ~~[[place]]~~ placed on the mask. Furthermore, patterning on top of a grating or other surfaces with severe topological features is possible providing significant advantages in MEMS applications.

Please amend the paragraph at page 5, lines 8-9 as follows:

Fig. 7 is an illustration of a substrate subjected to exposure ~~though~~ through a mask which has been produced in accordance with an aspect of the present invention.

AMENDMENTS TO THE SPECIFICATIONIn the Specification:

Please amend the paragraph at page 1, lines 5-8 as follows:

The present invention generally relates to semiconductor processing and, more particularly, to a system and method for extending resolution of and production of small features ~~[[in]]~~ achievable in nanoprnt lithography.

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Please amend the paragraph at page 1, line ~~20~~²² through page 2, line 3 as follows:

The requirement of small features with close spacing between adjacent features requires high resolution lithographic processes. In general, lithography refers to processes for pattern transfer between various media. It is a technique used for integrated circuit fabrication in which a silicon structure is coated uniformly with a radiation-sensitive film (~~[[the]]~~ a resist or a lithographic coating) and an exposing source (such as optical light, x-rays, or an electron beam) illuminates selected areas of the ~~surface coated~~ silicon structure through an intervening master template. The intervening master template is generally known as a mask, photomask, or reticle for a particular pattern. The lithographic coating is generally a radiation-sensitive coating suitable for receiving a projected image of the subject pattern. Once the image is projected, it is indelibly formed in the coating. The projected image may be either a negative image or a positive image of the subject pattern. Exposure of the coating through a reticle, mask or photomask causes the image area to become either more or less soluble (depending on the coating) in a particular solvent developer. The more soluble areas are removed in the developing process to leave the pattern image in the coating as less soluble polymer.